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TITLE : MANUFACTURE OF AL-ZN ALLOY-COATED STEEL SHEET

ABSTRACT : PURPOSE: To inexpensively and efficiently manufacture a coated steel sheet excellent in corrosion resistance and having superior adhesive strength of coating film by coating a steel-sheet surface with an Al-Zn alloy with a specific composition by means of thermal spraying and then subjecting the resulting sprayed deposit to rolling reduction to a specific reduced thickness at a specific temp.

CONSTITUTION: A sprayed deposit of an alloy which has a composition consisting of, by weight, >40-65% Al and the balance essentially Zn and further containing, if necessary, 0.05-0.50% Ni and/or 0.02-0.20% Mg is allowed to adhere to a steel-sheet surface to 100-1,000 $\mu$ m thickness by thermal spraying. Subsequently, the above sprayed deposit is subjected to rolling reduction at 100-400°C, by which the thickness of the sprayed deposit is reduced to 50-90% of the film thickness after thermal spraying. By this method, the Al-Zn alloy-coated steel sheet showing sufficient corrosion resistance even if sealing treatment with resin is omitted and having superior adhesive strength of coating film can be obtained.

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